

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001612**Date Inspected:** 12-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 200**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Fu Yu Hong**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** 89 & 77 Meter Mockup**Summary of Items Observed:**

Caltrans Quality Assurance Inspector Gabriel Quintana (QA Inspector) arrived at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to observe fabrication and Quality Control Inspectors (QC Inspectors) perform their duties and responsibilities as specified in the contract documents, approved plans, fabrications documents and Special Provisions for this project. While on site the QA Inspector observed the following:

Tower Shop- QA Inspector observed ZPMC qualified welder Xia Yongliu ID #048882 groove welding fill passes on the 77 Meter Mockup MAU-MA1-D/F joining Skin "C" to Skin "D" at Weld Map Joint #16B. QA Inspector observed QC Inspector Fu Yu Hong observing welding in the 1G (flat) position utilizing the Submerged Arc Welding (SAW) process with a 4.8mm diameter electrode utilizing the approved Welding Procedure Specification (WPS) number WPS-B-T-2221-C-U2b-S. QA Inspector observed QC Inspector perform frequent monitoring of preheat and interpass temperature. QA Inspector observed that the welding parameters and preheat are in accordance with the approved WPS and verified the following welding parameters: interpass 190° Celsius, 719 amps, 31.2 volts and travel speed of 722mm per minute. QA observations appear to comply with contract requirements and the approved WPS.

Bay 2- QA Inspector randomly observed ZPMC qualified welder Dai Lu ID #048659 groove welding fill passes on 89 Meter Mockup MUB-MA26 Weld Map Joint #31A. Welding in progress was observed in the 2G position utilizing the Shielded Metal Arc Welding (SMAW) process per the approved WPS-B-T-3212-TC-U5b. QA Inspector observed the ZPMC QC Inspector Fu Yu Hong verifying that the welding parameters and preheat were in accordance with the approved WPS. QA Inspector observed QC Inspector monitor preheat and interpass

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temperature to be a minimum of 160° Celsius and not greater than 230° Celsius. QA Inspector observed that welding parameters are verified by the QC Inspector to be within the parameters of the WPS. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 203 amps, welding voltage 20.7 volts. The weld parameters appeared to comply with contract requirements and the approved WPS.

Summary of Conversations:

General communications took place between the QA and QC Inspector.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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| Inspected By: | Quintana,Gabriel | Quality Assurance Inspector |
| Reviewed By: | Cochran,Jim | QA Reviewer |
